

**Minutes for Rule 21 Working Group Meeting #63**  
**January 13, 2005**  
**California Energy Commission**  
**Sacramento, CA**

There were 35 Working Group members in attendance at Meeting No. 63 in person or conferenced in by telephone. The next regular meeting of the Working Group is scheduled for February 24, at PG&E in Oakland CA.

Scott Tomashefsky, Chair

Allured	Charles	Energy & Power Solution	Minnier	Randy	MPE Consulting
Arthur	Chuck	Arthur Engineering	Panora	Bob	Tecogen
Blair	Tom	City of San Diego	Parks	Ken	SDG&E
Blumer	Werner	CPUC/ED	Patrick	Robert	Valley Air Solutions
Brooks	Bill	BEW Engineering	Prabhu	Edan	Reflective Energies
Brown	David	SMUD	Ross	Jim	CAC/EPUC
Cook	Bill	SDG&E	Sheriff	Nora	CAC/EPUC
Edds	Michael	DG Energy Solutions	Skeen	Jim	
Goh	Jeff	PG&E	Smith	Richard	SDG&E
Grebel	Ed	SCE	Solt	Chuck	Lindh & Assoc
Griffith	Dana	NCPA	Sorter	Chuck	BluePoint Energy
Iammarino	Mike	SDG&E	Soudi	Farajollah	
Jackson	Jerry	PG&E	Treanton	Bernard	CEC
Lacy	Scott	SCE	Tunnicliff	Dan	SCE
Luke	Robin	RealEnergy	Vaziri	Mohammad	PG&E
Mazur	Mike	3 Phases Ergy Services	Whitaker	Chuck	BEW Engineering.
Michel	Dave	CEC	White	Lorraine	CEC

## **Combined Process and Technical Group**

### **Rule 21 Revisions Advice Letter Progress and Status**

The CPUC has formally approved SCE and SDG&E advice letters that will more closely incorporate IEEE 1547 provisions throughout the Rule 21 tariffs. PG&E expects to file its version of the tariff update shortly.

Consistent with working group discussions several months ago, the IOUs will now prepare advice letters seeking approval to revise certain elements of the current Interconnection Application form. The contents of the Application Form were developed by the Working Group in the first half of 2004 with changes sequenced to occur after the Rule 21 tariff changes were adopted. SDG&E will file their Advice Letter on the Application form within 2 weeks. SCE is not certain of its schedule, and PG&E will file after it files the revised Rule 21.

## **Rule 21 Model Rule Language**

The final version of Rule 21(referred to by the Working Group as the Grand Reconciliation Document) that was the basis for the Advice Letters mentioned above has been posted on the CEC website at [www.energy.ca.gov/distgen/interconnection/RULE-21-MODEL\\_2004-09-15.PDF](http://www.energy.ca.gov/distgen/interconnection/RULE-21-MODEL_2004-09-15.PDF).

## **DG Activity Reports**

All three utilities provided DG Activity Reports through the end of 2004 for distribution before the meeting. The issue led to a longer discussion about data reporting requirements among the group, specifically in response to how PG&E should respond to Valerie Beck's request to receive a listing of all non-utility generation in the state. The discussion raised the question of data reporting requirements and which parties have access to which pieces of data. Scott indicated the issue of data reporting will be addressed in R.04-03-017 but the Working Group process section should place time on the agenda of an upcoming meeting.

## **DG OII (CEC-04-Dist-Gen) Action item review**

On December 10 (after the last WG meeting), the WG presented its final Recommendations Report to the Energy Commission's Integrated Energy Policy Report Committee. The Committee then submitted its recommendation report to the Commission on January 6. There is a public comment period open until January 20. The Commission will then consider the Committee report for adoption on February 2. The recommendations will then be sent to the CPUC for further consideration in CPUC docket R.04-03-017

## **DG OIR (R.04-03-017) Activity**

A Net Energy Metering report required per legislative mandate is expected to be released by the CPUC by the end of January. Hearings are still scheduled to be held in early March.

## **CRS Quarterly Data Reports (Per CPUC Resolution E-3831)**

Based on discussions between Scott Tomashefsky and Valerie Beck of the CPUC, it appears that the requirement for the quarterly reports will be eliminated via an upcoming Executive Director's order.

## **IEEE 1547 Interconnection Standard Activity**

The IEEE 1547 Committee has completed the Testing Standard, 1547.1. The first round of balloting is complete with 85% of votes approving the standard (71 approve, 13 negative, 7 abstain), well in excess of the 75% needed for approval. Negative ballot comments are being addressed, as required by IEEE voting rules, and may result in some changes. If there are changes, the revised document will be sent for a recirculation ballot. In the recirculation ballot, voters will be given the opportunity to change their vote based solely on any technical changes to the document. It is expected that the document will be ready for Approval at the June 2005 Standards Board meeting. The impact of the new standard on Rule 21 will primarily be to Section J. Such changes should, for the most part be fairly non-controversial, for example, changing the current UL test references to IEEE references.

## **FERC DG Rulemaking**

A coalition of interested parties continues working on FERC [RM02-12-000](#) on Small generation (less than 20 MW). A consensus is expected to be filed by February 1. No one likes it, but a consensus will likely be reached.

## **Rule 21 Certifications**

There is nothing new on the Capstone certification effort (Capstone had requested corrections from UL on its test documentation to clarify questions raised in our review). Once those corrections are made The Certification Group will meet to review the changes and determine if re-certification is warranted. It is likely that they will conclude that the changes do not require re-certification.

Currently, there are no other certification requests in the pipeline.

Note that based on the Rule 21 language in the current advice letters (finalized last April) existing certifications will expire on December 31, 2005, and all equipment will have to be evaluated to the new requirements.

## **UL 1741**

UL will not revise its IEEE 1741 (inverter safety tests) modifications until IEEE 1547.1 (interconnection equipment testing) is approved.

## **Supplemental Review Guideline**

There was discussion as to whether the Guideline, or parts thereof, should be incorporated into Rule 21. It was generally felt that it should stay a guidance document. While some sections could be incorporated into the rule (as has been done, for example, with some definitions), it is generally preferred that the Guideline be flexible, and therefore be retained as a guideline..

## **Possible New Action Items**

Jerry Jackson raised two other items for the WG to consider: 1) PV systems without inverters and 2) Voltage Regulation on NEM. On the first issue, PG&E needs to clarify that there is an interconnection issue (i.e., that there is ac generation in parallel with the utility) and not just a “load” issue. The second issue is already being considered under Action Item T136.

Edan Prabhu reminded the group that there are procedures for introducing new Action Items. Those procedures will be redistributed before the next meeting.

## **Process Breakout Group Notes**

The process group reviewed the process items on the Action Item list. Many items were moved to the Completed list because they were resolved with the completion of the Recommendation Report to the IEPR Committee.

It was agreed that new Action Items should be introduced to accommodate the actions of the PUC on the OII recommendations.

Much of the remaining discussion centered around the upcoming comments on the IEPR Committee Recommendation on Changes to Interconnection Rules. Several parties requested clarification regarding the Committee’s rationale for several of its conclusions. Scott Tomashefsky responded to several specific questions by PG&E and others, with the intent of providing focused comments on January 20.

## **Technical Breakout Group Notes**

- Review/Revise Action Item List: Technical-Related Items
  - Reviewed, discussed the status of most, revised some dates, established some missing priorities, and moved an item to the Completed list. No new items were added.
- T113 Redundancy – Input from Moh Vaziri and Chuck Sorter
  - Chuck Sorter presented his write-up. Concludes that only 33 relay (reverse power) should be necessary—there is no technical reason for any other redundancy.
  - Moh Vaziri was not able to complete his write-up for this meeting but will put something together. He did respond to Sorter’s presentation noting that the utility has broadly implemented redundant relaying and has convinced itself that there is a valid need.
  - Discussion was brought to focus on the “single point of failure” issue for which redundancy is one possible solution.
  - Brooks notes that the intent was to get both industry and utility perspectives on this topic; for the industry perspective the idea was to get information on standard equipment design that might be considered to address the “no single point of failure”, either through internal redundancy, fail safe design, etc.
- T134 Networks – Discuss work plan/make assignments
  - The work plan document was reviewed and assignments made (see table below).

### **Work plan Assignments and Actions**

<b>Task</b>	<b>Champion</b>	<b>Action/Comment</b>	<b>Due Date</b>
1. Develop Basic Info	Whitaker	Provide DUIT report and links to MDGC. Add any available information related to New York meeting	2/15/05
2. Identify CA Networks	Dave Brown	Provide List	2/24/05
3. Identify US Stakeholders	Bill Brooks	Provide List	2/24/05
4. Identify and Investigate other Information Sources	Jeff Goh	Provide info and links	March meeting
5. Identify and Investigate other Rules and Requirements	Moh Vaziri	Available requirements from any source.	2/24/05
6. Identify and investigate existing DR on networks	Dave Brown, Jeff Goh, Scott Lacy, Mike Edds	Examples of different types (inverter, induction, synchronous), similarities and differences	March Meeting
7. Identify Problems and Solutions	Moh Vaziri	Identify list of issues known to date (draft by March)	March Meeting
8. Investigate Costs			

- Proposals for New Work Items
  - No new items were proposed